

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandra, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|-------------------------------|--------------------------|----------------------|-------------------------|------------------|--|
| 09/485,187 | 06/26/2000 | Marion Kwart | 147-191P 1628 | | |
| 2292 | 7590 11/18/2003 | | EXAMINER | | |
| BIRCH STEWART KOLASCH & BIRCH | | | KUBELIK, ANNE R | | |
| PO BOX 74° FALLS CHU | / JRCH, VA 22040-0747 | , | ART UNIT PAPER NUMBER | | |
| | | | 1638 | | |
| | | | DATE MAILED: 11/18/2003 | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | |
|--|---|---|-------------------------------------|--|--|--|
| Advisory Action | 09/485,187 | KWART ET AL. | | | | |
| · | Examin r | Art Unit | | | | |
| | Anne R. Kubelik | 1638 | | | | |
| The MAILING DATE of this communication appe | ars on the cover sheet with the c | correspondence add | ress | | | |
| THE REPLY FILED 8/7/03 and 10/16/03 FAILS TO PLACE Therefore, further action by the applicant is required to average final rejection under 37 CFR 1.113 may only be either: (1) condition for allowance; (2) a timely filed Notice of Appeal Examination (RCE) in compliance with 37 CFR 1.114. | oid abandonment of this applica a timely filed amendment which | ation. A proper reply n places the applica | y to a ition in | | | |
| PERIOD FOR RE | PLY [check either a) or b)] | | | | | |
| a) The period for reply expiresmonths from the mailing b) The period for reply expires on: (1) the mailing date of this A no event, however, will the statutory period for reply expire is ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS 706.07(f). | dvisory Action, or (2) the date set forth ater than SIX MONTHS from the mailing | g date of the final rejection | on. | | | |
| Extensions of time may be obtained under 37 CFR 1.136(a). The fee have been filed is the date for purposes of determining the period o fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of t (2) as set forth in (b) above, if checked. Any reply received by the Offic timely filed, may reduce any earned patent term adjustment. See 37 C | f extension and the corresponding amo the shortened statutory period for reply the later than three months after the mail | unt of the fee. The approriginally set in the final | opriate extension Office action; or | | | |
| 1. A Notice of Appeal was filed on <u>10/3/03</u> . Appellant's 37 CFR 1.192(a), or any extension thereof (37 CFR | | | | | | |
| 2. The proposed amendment(s) will not be entered be | ecause: | | | | | |
| (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below); | | | | | | |
| (b) ☐ they raise the issue of new matter (see Note below); | | | | | | |
| (c) they are not deemed to place the application in issues for appeal; and/or | better form for appeal by mater | rially reducing or sin | nplifying the | | | |
| (d) they present additional claims without canceling NOTE: | ng a corresponding number of fi | nally rejected claims | S. | | | |
| 3. Applicant's reply has overcome the following rejecti | ion(s): | | | | | |
| 4. Newly proposed or amended claim(s) would local canceling the non-allowable claim(s). | | parate, timely filed a | amendment | | | |
| 5. ☑ The a) ☐ affidavit, b) ☐ exhibit, or c) ☑ request for application in condition for allowance because: See | reconsideration has been consideration Sheet. | dered but does NO | Γ place the | | | |
| 6. The affidavit or exhibit will NOT be considered becaraised by the Examiner in the final rejection. | ause it is not directed SOLELY to | s issues which were | e newly | | | |
| 7. For purposes of Appeal, the proposed amendment(explanation of how the new or amended claims wo | s) a) will not be entered or b) uld be rejected is provided below | ⊠ will be entered a w or appended. | nd an | | | |
| The status of the claim(s) is (or will be) as follows: | | | | | | |
| Claim(s) allowed: | | | | | | |
| Claim(s) objected to: | | | | | | |
| Claim(s) rejected: <u>1-3,5, 8-14, 16-37</u> . | | | | | | |
| Claim(s) withdrawn from consideration: 4,6 and 7. | | | | | | |
| 8. The drawing correction filed on is a) appro | oved or b) disapproved by th | ne Examiner. | | | | |
| 9. Note the attached Information Disclosure Statemen | | | | | | |
| 10.⊠ Other: | (*)(*) | . | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Continuation Sh t (PTOL-303)

Continuation of 5. does NOT place the application in condition for allowance because:

112, 1st, written description: Applicant attaches results of searches in EMBL and Swissprot databases and urges that a number of sucrose transporters were known at the time of filing. This is not found persuasive. Several of the transporters are listed twice; once as DNA, the second time as protein (see for example Spinach, E. coli and Bacillus). Additionally amongst the list there are at least two very different types of transporters, sucrose-protein transporters and sucrose phosphotransporters; the plant type is the sucrose-protein transporter. All the plant type transporters are from dicots; no monocot transporters are taught. Thus, written description is not provided for the full scope of the claimed sucrose transporters. Lastly, no companion cell promoter other than RolC is described. 112, 1st, enablement: Applicant urges that a number of sucrose transporter genes were known at the time of filing. This is not found persuasive because sucrose transproters were not known to the full scope of the claims. Additionally, other companion cell promoters are not taught.

With respect to the recitation of "G21319", see below.

103 (b) over Frommer in view of Kuhn: Applicant urges that the premise that a sense construct would have the opposite effect of an antisense construct is faulty, and cites Busch et al and Woo et al, who each disclose instances in which the sense construct did not have the opposite effect of the antisense construct. Applicant urges that the premise of the reejction is faulty and not consistent with what would be expected by one of skill in the art, who would not expect the use of a promoter in a sense construct to have the same effec as use of a promoter in an antisense construct. This is not found persuasive. In the instant case Frommer et al teach that sense expression of a sucrose transporter froma constitutive promoter resulted in increased yield; Kuhn et al teach the RoIC promoter. One of skill in the art would not expect that use of a different promoter would give different results. For Busch and Woo to be relevant, they would have had to have shown one result for the sense constructs with one promoter and a different result with another promoter. Thus, Busch and Woo do not apply to the instant case.

103 (b) over Frommer in view of Kuhn and further in view of Leggewie, maintained for the reasons above.

Continuation of 10. Other:

With respect to the recitation of "G21319", Applicant has amended the specification and provides a Declaration from Dr. Reismeier. Examiner answers: The Gi: numbers are not accession numbers (they're another sequence-specific number) while numbers starting with just G are accession numbers. HOWEVER, in the next sentence Applicant cites a paper by Reismeier (the Gi numbers is to that sequence) and on pg 13, lines 2-3, of the specification, applicant does recite the correct Accession numbers for the Reismeier sequence. Thus, support is found for the amendment..

AMY J. NELSON, PH.D SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 1600

Any Nel